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EXAMINER	
LETT, THOMAS J	

ART UNIT	PAPER NUMBER
2625	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/053,654	CHANG ET AL.	
	Examiner	Art Unit	
	Thomas J. Lett	2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 May 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-26,28-30 and 32-39* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-26,28-30 and 32-39* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *30 May 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 07 June 2006 have been fully considered but they are not persuasive.

The applicant asserts that Buckley does not disclose or suggest that the printer or printer server renders documents with different set of rendering parameters.

Examiner finds disclosure of Buckley indicating that the printer driver and the virtual printer definitions may be stored in the print server 200 and/or the printer 300 and may be implemented in firmware and/or hardware (see column 7 lines 21-28). In addition, Buckley allows the rendering of different content by using a metaprinter consisting of virtual printers (col. 4, lines 50-62).

The examiner notes that the applicant admits that generating output PDL data (step 160) form from data content and sending the PDL data (intermediate data) from an information apparatus to an output device to be rasterized (step 190) is prior art, clearly shown in Fig. 1B.

The applicant states Buckley et al does not disclose or suggest a method of generating a device independent data from the general purpose computer 100. The print data generated from the UI accordingly is specific to a specifically user selected virtual printer or virtual printer model.

The printer options of Buckley et al do not limit said prior art to device-specific settings. The settings merely allow a user to customize the rendering to the user's desire. The user has, at the user's disposal, the option of choosing

from several printers because the network is equipped with a plurality of printers. The disclosure of Buckley et al never limited, or taught away from, using device-independent parameters (as indicated at col. 7, lines 29-34).

Applicant states that Buckley et al do not disclose or suggest that the general purpose computer 100 or the disclosed UI (FIG. 3, 4, 5, 6) discovers an output device over a local area network. It is important to note that in Buckley et al, each virtual printer or its associated printer model is pre-installed, and stored in the general purpose computer. They are not obtained or retrieved from the local area network. Further in Buckley et al the selection step of the printer model that contains the parameters is based on user input and selection. It is not based on or related to discovered output devices nor does it suggest any method of automatic selection.

Examiner responds that although Buckley et al did not disclose the way the devices are discovered, it was well-known in the art for computer devices to discover other computing devices on a network using well-known operating systems. Computers were able to install other devices using software/drivers from networks, pre-installed drivers, and manual installation of drivers.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –

> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 18-31 are rejected under 35 U.S.C. 102(e) as being anticipated by Buckley et al (USPN 6,798,530 B1).

With respect to claim 18, Buckley et al disclose a method of outputting an image of a digital document that can be accessed by an information apparatus (general purpose computer 100, Fig.2) to an output system (printer server 200, links 220 and 222, and printers 300 or 310, col. 5, lines 32-36), the output system being a distinct device from the information apparatus (col. 6, lines 1-3), the information apparatus including information related to predetermined standard rasterization parameter values (Fig. 4, showing rendering options of a document) that include one or more of bit depth, color space, output size, and resolution (Fig. 2 and col. 7, lines 4-20, the generating of print data compatible or acceptable to a meta-printer 300 or 310, implemented by a processor 120, and discloses a virtual printer definition 430 that includes various settings such as the graphic resolution and paper size 450, col. 7, lines 35-46, and see Fig. 3), the standard rasterization parameters are output device independent and do not correspond to a specific output device (col. 6, lines 1-3. Examiner notes that the rasterization parameters are device independent. Buckley uses, as an optional feature, the selection of virtual printers as a meta-printer to render an optimal output, see col. 4, lines 9-38), said method comprising:

generating image data by rasterizing the digital document on the information apparatus in accordance at least in part with at least one device independent device (col. 6, lines 1-3. Examiner notes that the rasterization parameters are device independent. Buckley uses, as an optional feature, the selection of virtual printers as a meta-printer to render an optimal output, see col. 4, lines 9-38) rasterization parameter value (Fig. 4, showing rendering options of a document),

creating on the information apparatus (creating on the general purpose computer 100, Fig.2 using a graphical user interface 400 of Fig. 4) an intermediate output data that includes the image data,

transmitting the intermediate output data from the information apparatus to an output system, (printer server 200, links 220 and 222, and printers 300 or 310, col. 5, lines 32-36) the output system distinct from the information apparatus and includes an output engine that outputs an image with at least one device specific value that includes bit depth, color space, output size, or resolution (a virtual printer definition 430 that includes various settings such as the graphic resolution and paper size 450, col. 7, lines 35-46, and see Fig. 3),

recovering, at the output system (col. 9, line 66 – col. 10, line 3), the image data from the intermediate output data,

converting, at the output system, the image data with the at least one device independent (col. 6, lines 1-3. Examiner notes that the rasterization parameters are device independent. Buckley uses, as an optional feature, the selection of virtual printers as a meta-printer to render an optimal output, see col.

4, lines 9-38), rasterization parameter value to device dependent instructions compatible with the output engine that include the at least one device specific value (a user can select to have the document data sent to a compatible printer device using default or selected settings, col. 8, lines 7-13),

providing the instructions (rendering options provided to the output environment, col. 8, lines 14-23) to the output engine, and operating the output engine in response to said instructions and thereby outputting an image of the digital document.

With respect to claim 19, Buckley et al disclose a method according to claim 18, wherein the output device is a printing device and the output engine is a marking engine (printers 300 or 310, col. 5, lines 32-36).

With respect to claim 20, Buckley et al disclose a method according to claim 18, comprising selecting said output system from among a plurality of available output systems (selecting either of printers 300 or 310, col. 5, lines 32-36) and uploading at least one value specifying said predetermined rasterization parameters (col. 7, lines 35-48) to the information apparatus.

With respect to claim 21, Buckley et al disclose a method of outputting an image of a digital document that can be accessed by an information apparatus (general purpose computer 100, Fig.2), the digital document including at least part of a text or graphics information (text or graphics, col. 4, lines 30-34), said method comprising:

selecting, at the information apparatus (printers 300 or 310, col. 5, lines 32-36), an output device from among the one or more output devices discovered (printers are defined by rendering options, col. 4, lines 9-38),

accessing a rasterization vector model that has at least one value corresponding to the selected output device (col. 4, lines 43-55),

rasterizing the digital document on the information apparatus in accordance with said rasterization vector to generate image data (Fig. 4, showing rendering options of a document),

creating an intermediate output data on the information apparatus that includes the image data (creating on the general purpose computer 100, Fig.2 using a graphical user interface 400 of Fig. 4),

transmitting the intermediate output data from the information apparatus to the selected output device (a user can select to have the document data sent to a compatible printer device using default or selected settings, col. 8, lines 7-13),

recovering at the output device (col. 9, line 66 – col. 10, line 3) the image data from the intermediate output data (a user can select to have the document data sent to a compatible printer device using default or selected settings, col. 8, lines 7-13),

converting the image data to instructions compatible with the output engine of the output device (a user can select to have the document data sent to a compatible printer device using default or selected settings for document conversion, col. 8, lines 7-13),

providing the instructions to the output engine of the output device (rendering options provided to the output environment, col. 8, lines 14-23), and operating the operating engine in response to said instructions and thereby outputting an image of the digital document.

With respect to claim 22, Buckley et al disclose a method according to claim 21, wherein the rasterization vector is obtained from the output device (the selected virtual printers define their rendering options for a document, col. 4, lines 46-55).

With respect to claim 23, Buckley et al disclose a method according to claim 21, wherein the output device is a printing device and the output engine is a marking engine (printers 300 or 310, col. 5, lines 32-36).

With respect to claim 24, Buckley et al disclose a method of outputting an image of a digital document that can be accessed by an information apparatus (general purpose computer 100, Fig.2), said method comprising:

rasterizing the digital document on the information apparatus to generate image data (Fig. 4, showing rendering options of a document), the digital document includes at least one of an image, graphics or text (mixed raster content),

creating an intermediate output data (creating on the general purpose computer 100, Fig.2 using a graphical user interface 400 of Fig. 4) on the information apparatus, the intermediate output data being output device independent and not corresponding to a specific output device model (disclosed in col. 9, lines 26-36 using mixed raster content),

transmitting the intermediate output data, from an information apparatus, to an output device that includes an output engine (a user can select to have the document data sent to a compatible printer device using default or selected settings, col. 8, lines 7-13), the output device being distinct from the information apparatus (col. 6, lines 1-3),

recovering at the output device (col. 9, line 66 – col. 10, line 3), the image data from the intermediate output data (a user can select to have the document data sent to a compatible printer device using default or selected settings, col. 8, lines 7-13),

converting the image data into device dependent output instructions (col. 6, lines 1-3. Examiner notes that the rasterization parameters are device independent. Buckley uses, as an optional feature, the selection of virtual printers as a meta-printer to render an optimal output, see col. 4, lines 9-38) compatible with the output engine (a user can select to have the document data sent to a compatible printer device using default or selected settings for document conversion, col. 8, lines 7-13),

providing the instructions to the output engine (rendering options are provided to the output environment, col. 8, lines 14-23), and

operating the output engine in response to said instructions and thereby outputting an image of the digital document (printing to printers 300 or 310, col. 5, lines 32-36).

With respect to claim 25, Buckley et al disclose a method according to claim 24, wherein the image data comprises a background layer, a foreground

layer and a mask layer (disclosed in col. 9, lines 26-36 using mixed raster content).

With respect to claim 26, Buckley et al disclose an imaging system comprising:

a local area network (col. 5, line 56) having a wireless (design choice) propagation medium and at least first and second nodes, said first node including an information apparatus (general purpose computer 100, Fig.2) and said second node including an output device (printer server 200, links 220 and 222, and printers 300 or 310, col. 5, lines 32-36), said output device including an output engine for outputting images,

a first means on the information apparatus for discovering the output device (creating on the general purpose computer 100, Fig.2 using a graphical user interface 400 of Fig. 4 with a Windows® operating system that discovers connected devices),

a second means on the information apparatus (creating on the general purpose computer 100, Fig.2 using a graphical user interface 400 of Fig. 4) for rasterizing a digital document to generate image data,

a third means on the information apparatus for creating an intermediate output data that includes the image data (processor 120, col. 6, lines 45-47),

a fourth means on the information apparatus for impressing the intermediate output data on the wireless (design choice) propagation medium (printer driver memory portion 134, col. 6, lines 43-47), and an output controller (printer server 200 for implementing printer definitions, col. 7, lines 25-29) at the

second node for retrieving the image data from the intermediate output data and converting the image data into an input acceptable for rendering by the output device.

With respect to claim 28, Buckley et al disclose an imaging system according to claim 26, wherein the output device includes a means for uploading to the information apparatus an output device profile that specifies device specific rasterization parameter values that include one or more of bit depth, output size, color profile, and resolution to the information apparatus (the selected virtual printers define their rendering options for a document, col. 4, lines 46-55).

With respect to claim 29, Buckley et al disclose a method of outputting an image of a digital document that can be accessed by an information apparatus (general purpose computer 100, Fig.2), said method including:

(a) establishing bidirectional communication (via LAN and links 210, 220, and 222) between the information apparatus (general purpose computer 100, Fig.2) and at least two output devices (printers 300 and 310, see Fig. 2), the information apparatus being a distinct device from the output devices the information apparatus being a distinct device from the output devices),

(b) receiving an output device profile from a first available output device specifying a feature of the first available output device (GUI displays selectable features as shown in Figs. 4 and 5 for printers connected to the system), the output device profile not previously stored or installed in the output device (stored in client) and the feature included in the output device profile relating to one or

more of a quality of service, a price indicator, a status indicator, an availability indicator, and an output data format indicator,

(c) determining at the information apparatus and from the message received whether the feature of the available output device matches a requirement for outputting the digital document (features not available for the printer would not be shown as a selectable option. Examiner notes that it is inherent that a non-available feature would be unselectable or "grayed-out" in the options pane for the printer),

(d) if so, selecting said available output device (user can use GUI to choose any available printer connected to the system) and transmitting image data to the selected output device, and otherwise receiving a message from another available output device specifying a feature of the other available output device (user can use GUI to choose another available printer connected to the system), and (e) repeating steps (c) and (d) (Examiner notes that a user can repeatedly select steps (c) and (d) until the user has found a printer that the user feels is optimal to rendering a document). Examiner further notes that the claim would continue to repeat steps (c) and (d) without end.

With respect to claim 30, Buckley et al disclose a method according to claim 29, comprising, prior to step (b), transmitting from the information apparatus a message that calls for a receiving output device to transmit a message that specifies a feature of the respective output device (prior to step (b) a user operates a GUI to display selectable features as shown in Figs. 4 and 5 for printers connected to the system).

With respect to claim 32, Buckley et al disclose a method according to claim 29, in which the determining step (c) includes one of a user input or an automatic selection by a client application installed or stored in the information apparatus (features not available for the printer would not be shown as a selectable option. Examiner notes that it is inherent that a non-available feature would be unselectable or "grayed-out" in the options pane for the printer).

With respect to claim 33, Buckley et al disclose a method according to claim 29, in which the establishing bidirectional communication step (a) is a wireless communication (col.5, lines 43-49).

With respect to claim 39, Buckley et al disclose an imaging system according to claim 26, wherein the information apparatus is a mobile device (Examiner notes that it was well-known in the art to use PDAs and other mobile devices to select printers for rendering output).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lin et al (US Patent 6,941,014 B2) in view of Buckley et al (US Patent 6,798,530 B1).

With respect to claim 1, Lin et al disclose a method of outputting a digital document from an information apparatus (image processing unit 52, col. 4, lines 44-48) that is on a local area network (see Fig. 2), the digital document (pixel map 54, col. 4, lines 49-51) accessible by the information apparatus (the pixel map contains three planes consisting of text and/or graphics, col. 6, lines 35-51) and the one or more output devices being distinct from the information apparatus, said method comprising:

discovering, at the information apparatus, the one or more output devices on the local area network (see Figs. 5 and 6 showing Printer 1 and Printer 2 and the ability to change settings),

selecting an output device from among the one or more discovered output devices (see Figs. 5 and 6 showing Printer 1 and Printer 2 and the ability to change settings),

rasterizing at the information apparatus to generate image data, the generation of the image data utilizing rendering parameters that are independent of the selected output device, (the system is operative to generate a scanned, rasterized image and a corresponding pixel map so that the image may be digitally stored in the buffer, col. 4, lines 17-21),

creating, at the information apparatus, an intermediate output data that includes the image data (segmentation module 60 includes a plurality of distinct segmentation modules 100 operative to generate image segmentation data representing various characteristics of the image data, col. 5, lines 4-10),

recovering, at the output device, the image data from the intermediate output data (storage section 26 saves image data before rendering, Fig. 2),

providing the instructions to the output engine (image is sent to the printer, col. 4, lines 15-17), and

operating the output engine in response to said instructions and thereby outputting an image of the digital document (image is sent to the print engine 32 for printing, col. 4, lines 15-17).

Lin et al does not disclose expressly transmitting, from the information apparatus, the intermediate output data to the selected output device, the output device including an output engine that outputs images with a device-specific output size and resolution, an output engine that outputs images with a device-specific output size and resolution and converting the image data to instructions compatible with the output engine, based at least in part on the device-specific output size and resolution of the output engine. Buckley et al discloses a virtual printer definition 430 that includes various settings such as the graphic resolution and paper size 450, col. 7, lines 35-46, and sees Fig. 3. Lin et al and Buckley et al are analogous art because they are from the similar problem solving area of image rendering. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to add the resolution and size setting feature of Buckley et al to the image processing system of Lin et al in order to obtain an image processing system capable of rendering an image specific to an output device. The motivation for doing so would be to convert an image based on capability of an output device.

With respect to claim 2, Lin et al disclose a method according to claim 1, wherein the output engine is one of a marking engine (xerographic print engine 58), a display engine and a projection engine.

With respect to claim 3, Lin et al disclose a method according to claim 1, wherein the intermediate output data includes a mixed raster content encoding (Fig. 4 shows the 3-layer mixed raster content prior to becoming 4-layer mixed raster content).

With respect to claim 4, Lin et al do not disclose that the output device is a printing device that includes a printer controller and an output controller, the method further comprising,

generating with the output controller a print data that is acceptable to the printer controller and including the recovered image data into the print data, and

passing the print data to the printer controller for converting the image data into instructions compatible with the output engine, based at least in part on the device-specific output size and resolution of the marking engine.

Buckley et al teach in Fig. 2 and col. 7, lines 4-20 the generating of print data compatible or acceptable to a meta-printer 300 or 310, implemented by a processor 120, and discloses a virtual printer definition 430 that includes various settings such as the graphic resolution and paper size 450, col. 7, lines 35-46, and see Fig. 3.

Lin et al and Buckley et al are analogous art because they are from the similar problem solving area of image rendering. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to add the

resolution and size setting feature of Buckley et al to the image processing system of Lin et al in order to obtain an image processing system capable of rendering an image specific to an output device. The motivation for doing so would be to convert an image based on capability of an output device.

With respect to claim 5, Lin et al do not disclose that the print data includes a page description language and the method comprises generating with the output controller a page description language (PDL) representation of the digital document to the printer controller and interpreting with the printer controller the PDL representation and converting the image data based at least in part on said device-specific output size and resolution.

Buckley et al teach of a virtual printer definition 430 that includes various settings such as the graphic resolution and paper size 450, col. 7, lines 35-46, and see Fig. 3.

Lin et al and Buckley et al are analogous art because they are from the similar problem solving area of image rendering. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to add the resolution and size setting feature of Buckley et al to the image processing system of Lin et al in order to obtain an image processing system capable of rendering an image specific to an output device. The motivation for doing so would be to convert an image based on capability of an output device.

With respect to claim 6, Lin et al do not expressly disclose a method according to claim 1, wherein the image included in the intermediate output data is encoded at least with predetermined standard output size and resolution and

the rasterizing step includes calculating at least one scale factor relating to the output size and resolution of the digital document to said predetermined standard output size and resolution and employing said scale factor as a rasterization parameter in the rasterizing step.

Buckley et al teach of, using an incorporated reference, a document being converted into data that is necessary to render the output based on an output profile, col. 9, lines 18-36.

Lin et al and Buckley et al are analogous art because they are from the similar problem solving area of image rendering. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to add the resolution and size setting feature of Buckley et al to the image processing system of Lin et al in order to obtain an image processing system capable of rendering an image specific to an output device. The motivation for doing so would be to convert an image based on capability of an output device.

With respect to claim 7, discloses Lin et al do not expressly disclose that the predetermined standard output size and resolution is included in the output device and the step of converting the image data to instructions compatible with the output engine further includes converting the image data from at least the standard output size and resolution to the output size and resolution of the output engine.

Buckley et al teach in Fig. 2 and col. 7, lines 4-20 the generating of print data compatible or acceptable to a meta-printer 300 or 310, implemented by a processor 120, and discloses a virtual printer definition 430 that includes various

settings such as the graphic resolution and paper size 450, col. 7, lines 35-46, and see Fig. 3.

Lin et al and Buckley et al are analogous art because they are from the similar problem solving area of image rendering. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to add the resolution and size setting feature of Buckley et al to the image processing system of Lin et al in order to obtain an image processing system capable of rendering an image specific to an output device. The motivation for doing so would be to convert an image based on capability of an output device.

With respect to claim 8, Lin et al disclose a method according to claim 1, wherein the step of creating the intermediate output data includes at least one of compression (Lin et al teach of an incorporated reference using compression of documents in the block-based segmentation module 200, col. 5, lines 50-58, and Fig. 4), encoding, encryption and color correction.

With respect to claim 9, Lin et al disclose a method according to claim 1, wherein the step of creating the intermediate output data includes creating an intermediate output data that includes at least one of an image (the optimized image data is compressed, stored, transmitted, and/or rendered, col. 5, lines 43-49), instructions, and a color profile.

With respect to claim 10, Lin et al disclose a method according to claim 1, wherein the step of recovering the raster image data from the intermediate output data includes at least one of decoding, decryption, and decompression (via decompression module 68, col. 4, lines 56-59, and col. 10, lines 14-15).

With respect to claim 11, discloses a method according to claim 1, wherein the step of converting the image data to instructions includes at least one of color space conversion, scaling, interpolation, color matching and halftoning (Lin et al teach of an incorporated reference using compression of documents in the block-based segmentation module 200, col. 5, lines 50-58, and Fig. 4 and teaches of processing image data of low/high-frequency halftone and contone, etc., col. 7, lines 7-14).

With respect to claim 12, Lin et al do not disclose obtaining a rasterization vector to the information apparatus and using said rasterization vector in the rasterizing step.

Buckley et al teach that the selected virtual printers define their rendering options for a document, col. 4, lines 46-55).

Lin et al and Buckley et al are analogous art because they are from the similar problem solving area of image rendering. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to add the obtaining of a rasterization setting feature of Buckley et al to the image processing system of Lin et al in order to obtain an image processing system capable of rendering an image specific to an output device. The motivation for doing so would be to convert an image based on capability of an output device.

With respect to claim 13, Lin et al do not disclose a method wherein the rasterization vector has at least one component related to the output device and includes one or more of an output size, resolution, color space, and bit depth.

Buckley et al teach of a virtual printer definition 430 that includes various settings such as the graphic resolution and paper size 450, col. 7, lines 35-46, and see Fig. 3.

Lin et al and Buckley et al are analogous art because they are from the similar problem solving area of image rendering. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to add the obtaining of a rasterization setting feature of Buckley et al to the image processing system of Lin et al in order to obtain an image processing system capable of rendering an image specific to an output device. The motivation for doing so would be to convert an image based on capability of an output device.

With respect to claim 14, Lin et al do not disclose a method according to claim 12, wherein at least one component of the rasterization vector is based on a predetermined standard value or default.

Buckley et al teach that a user can select to have the document data sent to a compatible printer device using default or selected settings, col. 8, lines 7-13.

Lin et al and Buckley et al are analogous art because they are from the similar problem solving area of image rendering. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to add the obtaining of a default setting feature of Buckley et al to the image processing system of Lin et al in order to obtain an image processing system capable of rendering an image specific to an output device. The motivation for doing so would be to convert an image based on capability of an output device.

With respect to claim 15, Lin et al do not disclose that the rasterization vector is obtained from the output device.

Buckley et al teach that the selected virtual printers define their rendering options for a document, col. 4, lines 46-55.

Lin et al and Buckley et al are analogous art because they are from the similar problem solving area of image rendering. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to add the display of a printer's features of Buckley et al to the image processing system of Lin et al in order to obtain an image processing system capable of showing the capabilities of a remote output device. The motivation for doing so would be to convert an image based on capability of an output device.

With respect to claim 16, Lin et al do not disclose that the method includes selecting an output device description from a plurality of output device descriptions presented to a user of the information apparatus.

Buckley et al teach in Fig. 6 the selection of optional printers based on their rendering capabilities.

Lin et al and Buckley et al are analogous art because they are from the similar problem solving area of image rendering. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to add the printer selection feature of Buckley et al to the image processing system of Lin et al in order to obtain an image processing system capable of showing the capabilities of a remote output device. The motivation for doing so would be to convert an image based on capability of an output device.

With respect to claim 17, Lin et al do not disclose inputting user preferences as components of a rasterization vector and using said rasterization vector in the rasterizing step.

Buckley et al teach of inputting rendering options using a graphical user interface 400 of Fig. 4.

Lin et al and Buckley et al are analogous art because they are from the similar problem solving area of image rendering. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to add the GUI feature of Buckley et al to the image processing system of Lin et al in order to obtain an image processing system capable of rendering a document based on the capabilities of a remote output device. The motivation for doing so would be to convert an image based on capability of an output device.

With respect to claim 34, Buckley et al disclose a method according to claim 1, wherein the information apparatus is a mobile wireless device (Examiner notes that it was well-known in the art to use PDAs and other mobile devices to select printers for rendering output).

With respect to claim 35, Buckley et al disclose a method according to claim 1, wherein the local area network is a wireless network (col.5, lines 43-49).

With respect to claim 36, Buckley et al disclose a method according to claim 35, wherein the wireless network is one of a Bluetooth, an infrared, a IEEE 802.11 and a wireless standard based on 2.4 GHz frequency (col.5, lines 43-49).

With respect to claim 37, Buckley et al disclose a method according to claim 21, wherein the information apparatus is a mobile device (Examiner notes

that it was well-known in the art to use PDAs and other mobile devices to select printers for rendering output).

With respect to claim 38, Buckley et al disclose a method according to claim 21, wherein the local area network is one of a Bluetooth, Irda, 802.11 (col.5, lines 43-49).

Conclusion

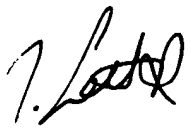
Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

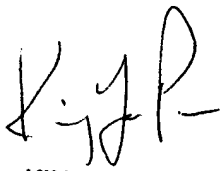
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas J. Lett whose telephone number is (571) 272-7464. The examiner can normally be reached on 7-3:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David K. Moore can be reached on (571) 272-7437. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TJL 



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